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## Patent Abstracts of Japan

PUBLICATION NUMBER : 59163520  
 PUBLICATION DATE : 14-09-84

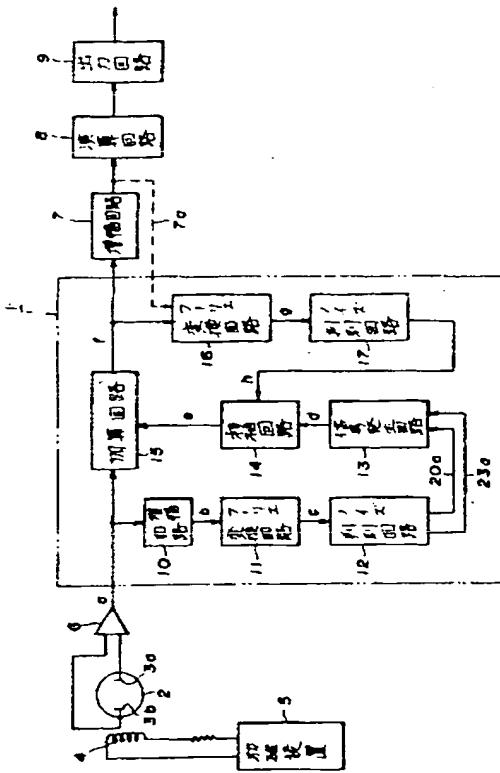
APPLICATION DATE : 09-03-83  
 APPLICATION NUMBER : 58037290

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INT.CL. : G01F 1/60

TITLE : ELECTROMAGNETIC FLOW METER



ABSTRACT : PURPOSE: To eliminate exactly a noise whose frequency is easily variable and large such as a commercial frequency noise, etc. by subtracting that which corresponds to a noise waveform except a flow signal waveform in a Fourier component, and eliminating a noise waveform in a Fourier space.

CONSTITUTION: A noise eliminating circuit 1 amplifies suitably an input signal (a) from a transmitter part received by a buffer amplifier 6, by an amplifying circuit 10, and Fourier-converts an amplified output (b) by the first Fourier converting circuit 11. The first noise discriminating circuit 12 detects a Fourier component corresponding to a commercial frequency noise in an output from the Fourier converting circuit 11, and its frequency and magnitude are derived. Subsequently, a control signal for generating a signal (d) which has the same frequency as the Fourier component, and the same magnitude as a commercial frequency noise determined from the magnitude of the Fourier component and the gain of the amplifying circuit 10 is applied to a signal generating circuit 13 which can control the frequency and amplitude basing on the derived value. The second noise discriminating circuit 17 provides a memory output 22a obtained by the first noise discriminating circuit 12 to a scanning circuit 18, and an address of the scan becomes an external control.

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